Memo

June 3, 2021

To: All-Cause Admissions and Readmissions Standing Committee

From: NQF staff

Re: Post-comment web meeting to discuss public comments received and NQF member expression of support or non-support

Introduction

NQF closed the public commenting period on April 28, 2021 for the measures that were submitted for endorsement consideration to the fall 2020 measure review cycle.

Purpose of the Call

The All-Cause Admissions and Readmissions Standing Committee will meet via web meeting on June 3, 2021 from 2:00 – 4:00 PM ET. The purpose of this call is to:

- Review and discuss comments received during the post-evaluation public and member comment period;
- Provide input on proposed responses to the post-evaluation comments;
- Review and discuss NQF members' expression of support or non-support of the measures under consideration; and
- Determine whether reconsideration of any measures or other courses of action are warranted.

Standing Committee Actions

1. Review this briefing memo and draft report.
2. Review and consider the full text of all comments received and the proposed responses to the post-evaluation comments (see comment table for the full text of all comments and additional documents included with the call materials).
3. Review the NQF members' expressions of support or non-support of the submitted measures.
4. Be prepared to provide feedback and input on proposed post-evaluation comment responses.

Conference Call Information

Please use the following information to access the conference call line and webinar:

Meeting link: https://nqf.webex.com/nqf/j.php?MTID=m01c39270817a75b41891a9d0951b0231
Meeting number: 173 011 5958   **Password:** QMEvent
Join by phone: 1-844-621-3956 **Access code:** 173 011 5958

Background

Reducing avoidable hospital admissions and readmissions continues to be an important focus of quality improvement across the healthcare system. Unnecessary hospitalizations can prolong the illness of patients, increase their time away from home and family, expose them to potential harms, and add to

their costs. Avoidable admissions and readmissions also significantly contribute to the high rate of healthcare spending in the United States.

The causes of avoidable admissions and readmissions are complex and multifactorial but are identifiably related to a lack of care coordination and poor discharge planning. However, environmental, community, and patient-level factors, including sociodemographic factors, can also affect the risk of readmission. The complexity of what causes avoidable admissions and readmissions means that providers across the healthcare continuum including hospitals, skilled nursing facilities, and clinicians in the community must work together to ensure high quality care transitions by improving care coordination across providers and engaging patients and their families.

NQF has actively worked to endorse and recommend the use of healthcare quality performance measures to reduce avoidable admissions and readmissions. The NQF-convened Measure Applications Partnership (MAP) has stressed the importance of measures addressing avoidable admissions and readmissions when it recommends measures for use in federal quality initiative programs. The MAP has stressed that measures of readmissions should be part of a suite of measures promoting shared accountability across the healthcare system.

Furthermore, to encourage hospitals to reduce preventable readmissions, the Centers for Medicare & Medicaid Services (CMS) created the Hospital Readmission Reduction Program. The program incentivizes hospitals to reduce risk-standardized 30-day readmissions for a variety of conditions, including, but not limited to, acute myocardial infarction (AMI), congestive heart failure (CHF), pneumonia, chronic obstructive pulmonary disease (COPD), and coronary artery bypass graft surgery (CABG).

The All-Cause Admissions and Readmissions Standing Committee oversees the NQF All-Cause Admissions and Readmissions measure portfolio. On February 12 and 16, 2021, the 24-member Standing Committee evaluated one newly submitted measure and six measures undergoing maintenance review. The Standing Committee recommended all measures for endorsement.

The Standing Committee recommended the following measures:

- **NQF #2888** ACO Risk-Standardized Acute Hospital Admission Rate for Patients With Multiple Chronic Conditions (MCC) (Yale CORE / CMS)

- **NQF #3597** Clinician-Group Risk-Standardized Acute Hospital Admission Rate for Patients With Multiple Chronic Conditions (MCC) Under MIPS (Yale CORE / CMS)

- **NQF #0330** Hospital 30-Day, All-Cause, Risk-Standardized Readmission Rate (RSRR) Following Heart Failure (HF) Hospitalization (Yale CORE / CMS)

- **NQF #0505** Hospital 30-Day All-Cause Risk-Standardized Readmission Rate (RSRR) Following Acute Myocardial Infarction (AMI) Hospitalization (Yale CORE / CMS)

- **NQF #0506** Hospital 30-Day, All-Cause, Risk-Standardized Readmission Rate (RSRR) Following Pneumonia Hospitalization (Yale CORE / CMS)

- **NQF #1891** Hospital 30-Day, All-Cause, Risk-Standardized Readmission Rate Following Chronic Obstructive Pulmonary Disease (COPD) Hospitalization (Yale CORE / CMS)

- **NQF #2515** Hospital 30-Day, All-Cause, Unplanned, Risk-Standardized Readmission Rate (RSRR) Following Coronary Artery Bypass Graft (CABG) Surgery (Yale CORE / CMS)

Comments Received

NQF receives comments on measures undergoing review in various ways and at various times throughout the evaluation process. First, NQF solicits comments on endorsed measures on an ongoing basis through the Quality Positioning System (QPS). Second, NQF solicits member and public comments during a 16-week comment period via an online tool on the project webpage.

Pre-evaluation Comments

NQF solicits comments prior to the evaluation of the measures via an online tool on the project webpage. For this evaluation cycle, the pre-evaluation comment period was open from December 17, 2020 to January 21, 2021 for the measures under review. The majority of the comments received were related to reliability, performance gap, social risk factors and risk adjustment. All of these pre-evaluation comments were provided to the Standing Committee prior to the measure evaluation meeting.

Post-evaluation Comments

The draft report was posted on the project webpage for public and NQF member comment on March 30, 2021 for 30 calendar days. The Standing Committee's recommendations will be reviewed by the Consensus Standards Approval Committee (CSAC) on Tuesday, June 29 – Wednesday, June 30, 2021. The CSAC will determine whether or not to uphold the Standing Committee's recommendation for each measure submitted for endorsement consideration. All Standing Committee members are encouraged to attend the CSAC meeting to listen to the discussion. During this commenting period, NQF received 15 comments from two member organizations:

Member Council	# of Member Organizations Who Commented
Health Professional	1
Provider Organization	1

We have included all comments that we received (both pre- and post-evaluation) in the comment table (excel spreadsheet) posted to the Standing Committee SharePoint site. This comment table contains the commenter's name, comment, associated measure, topic (if applicable), and—for the post-evaluation comments—draft responses (including measure steward/developer responses) for the Standing Committee's consideration. Please review this table in advance of the meeting and consider the individual comments received and the proposed responses to each.

In order to facilitate discussion, the majority of the post-evaluation comments have been categorized into major topic areas or themes. Although all comments are subject to discussion, the intent is not to discuss each individual comment on the June 3, 2021 post-comment call. Instead, we will spend the majority of the time considering the themes discussed below, and the set of comments as a whole. Please note that the organization of the comments into major topic areas is not an attempt to limit Standing Committee discussion. Additionally, please note measure stewards/developers were asked to respond where appropriate. Where possible, NQF staff has proposed draft responses for the Standing Committee to consider.

Comments and Their Disposition

Themed Comments

Three major themes were identified in the post-evaluation comments, as follows:

1. Reliability and Minimum Reliability Thresholds

2. Social Risk and Risk Adjustment
3. Opportunity for Improvement

1. **RELIABILITY/MINIMUM RELIABILITY THRESHOLDS**

   Commenters expressed concern with what they identified as less than desirable reliability thresholds and intraclass correlation coefficients at the minimum sample size/case volume.

   Measure Steward/Developer Response:

   Low Minimum Reliability Thresholds

   In setting a minimum reliability threshold, CMS needs to balance measure reliability with the statutory requirement to make performance measures applicable to the broadest number of providers. Measure reliability is driven by the outcome rate, minimum volume of patients, and the variation in outcome rates across providers. CMS typically sets a minimum reliability threshold of 0.4 in the MIPS program for these reasons. The minimum volume of patients and minimum number of providers per group is typically set by CMS during the process of rulemaking. With the minimum sample size of 18 MCC patients and a group size of greater than 15 clinicians per practice, mean reliability was 0.809, with a median of 0.873, IQR of 0.683 to 0.961, and a range from 0.413 to 0.999, which corresponds to adequate reliability.

   In the testing attachment for the measures, we provided both split sample and signal-to-noise reliability. Both the split-sample reliability and signal-to noise reliability results indicate sufficient measure score reliability.

   As a metric of agreement, we calculated the ICC for hospitals with 25 admissions or more. Using the Spearman-Brown prediction formula,

   - [#0505] the agreement between the two independent assessments of the RSRR for each hospital was 0.424.
   - [#0506] the agreement between the two independent assessments of the RSRR for each hospital was 0.544.
   - [#1891] the agreement between the two independent assessments of the RSRR for each hospital was 0.406.
   - [#2515] the agreement between the two independent assessments of the RSRR for each hospital was 0.436.

   We also calculated the signal-to-noise reliability score for each hospital with at least 25 admissions.

   - [#0505] The median reliability score was 0.51, ranging from 0.14 to 0.91. The 25th and 75th percentiles were 0.33 and 0.66, respectively.
   - [#0506] The median reliability score was 0.56, ranging from 0.13 to 0.96. The 25th and 75th percentiles were 0.34 and 0.73, respectively.
   - [#1891] The median reliability score was 0.43, ranging from 0.11 to 0.90. The 25th and 75th percentiles were 0.25 and 0.60, respectively.
   - [#2515] The median reliability score was 0.60, ranging from 0.27 to 0.92. The 25th and 75th percentiles were 0.45 and 0.71, respectively.

   The median reliability scores demonstrate moderate reliability.

Proposed Committee Response:

Thank you for your comments. The Standing Committee and the NQF Scientific Methods Panel previously considered the scientific acceptability, including the reliability testing. The Standing Committee reviewed this information during the measure evaluation meetings and voted to recommend these measures for endorsement.

2. SOCIAL RISK AND RISK ADJUSTMENT

Commenters raised concern with the lack of inclusion of social risk factors in the risk adjustment model and questioned the adequacy of the risk model due to the deviance R-squared results. As a result, commenters expressed that they do not believe that several of the measures meet the scientific acceptability criteria.

Measure Steward/Developer Response:

Social Risk

While there is a conceptual pathway by which patients with social risk factors could experience worse outcomes, the empiric evidence, and CMS's policy decision to adjust the measure at the payment/program level, do not support risk adjustment at the hospital level.

In our testing attachment we provided analyses showing that adjustment for social risk factors (dual eligibility and low AHRQ SES) did not have an appreciable impact on hospital measure scores: differences between adjusted and unadjusted measures scores were small, and correlations between adjusted and unadjusted measure scores were near 1. This suggests that existing clinical risk factors capture much of the risk related to social risk.

Additionally, we found that both the patient-level and hospital-level dual eligibility, as well as low AHRQ SES Index effects were significantly associated with COPD, CABG, AMI and pneumonia readmission.

The significance of the hospital-level effects indicates that if dual eligibility or low AHRQ SES Index variables were used to adjust for patient-level differences, then some of the differences between hospitals would also be adjusted for, potentially obscuring a signal of hospital quality

Finally, CMS adjusts for social risk (dual eligibility) within the Hospital Readmission Reduction Program (HRRP), which is consistent with recommendations from ASPE has also recommended that quality measures are not adjusted for SRFs (ASPE 2020). Given these empiric findings, ASPE's latest recommendations, and the fact that this is a hospital quality measure, CMS chose to not include these two social risk factors in the final risk model at this time.

Low Deviance R-squared

We appreciate this concern and agree that adequate risk adjustment for outcome measures is essential to ensure fairness. The deviance R squared evaluates how successful the fit is in explaining the variation of the data. Deviance R-squared can take on any value between 0 and 1, with a value closer to 1 indicating that a greater proportion of deviance is accounted for by the model. In quality measure development, models are not designed to optimize risk prediction but rather to account for differences in case mix that are unrelated to care quality. Some of the variation of the data will necessarily occur due to differences in care quality – thus, a deviance R squared close to 1 is neither expected nor desired. A deviance R squared in the range of 10-15% is typical for admission-based quality measures. The NQF Scientific Methods Panel members agreed that it was in the expected range for an outcome measure.

Proposed Committee Response:
Thank you for your comments. The Standing Committee and the NQF Scientific Methods Panel previously considered the scientific acceptability, including risk adjustment modeling and the consideration of social risk factors. The Standing Committee reviewed this information during the measure evaluation meetings and voted to recommend these measures for endorsement.

3. **OPPORTUNITY FOR IMPROVEMENT**
Commenters questioned whether the measures remain useful to distinguish hospital performance and drive improvements based on the low number of outliers (best and worst performers) in the distribution of hospital's performance scores and what commenters identified as minimal increases in absolute percentage points between July 2016-June 2017 and July 2018-June 2019.

Measure Steward/Developer Response:

Variation/Meaningful Differences
We appreciate this concern and agree that adequate risk adjustment for outcome measures is essential to ensure fairness. The analyses submitting with our testing attachments (for each measure) show meaningful differences in performance and therefore substantial opportunity for improvement.
- [#0505] The range in performance is 11.5% to 22.9%, with a mean of 16.2%. The median odds ratio for the measure score is 1.15, meaning that a patient has a 15% increase in the odds of a readmission at higher risk performance hospital compared to a lower risk hospital.
- [#0506] The range in performance is 13.1% to 24.3%, with a mean of 16.7%. The difference between the 10th and 90th percentile is 2.6 percentage points.
- [#1891] The range in performance is 15.5% to 26.8%, with a mean of 19.6%. The difference between the 10th and 90th percentile is 2.3 percentage points.
- [#2515] The range in performance is 8.6% to 22.6%, with a mean of 12.8%. The difference between the 10th and 90th percentile is 3.2 percentage points.

The results demonstrate clinical meaningfulness, and they suggest meaningful variation in quality across hospitals.

Proposed Committee Response:
Thank you for your comments. The Standing Committee previously considered and discussed the performance gap and improvement in measure rates over time during the measure evaluation meetings. The Standing Committee acknowledged there remains a gap in performance due to variations of measures scores and ultimately recommended the measure for endorsement.

Measure-Specific Comment

3597: Clinician-Group Risk-Standardized Acute Hospital Admission Rate for Patients with Multiple Chronic Conditions under the Merit-based Incentive Payment System
Commenters expressed concern that the attribution of this measure may not be reasonable, nor evidence based.

Measure Steward/Developer Response:
Acknowledging that there are multiple reasonable approaches for attributing patients to providers, CORE began by developing a set of criteria for selecting among attribution approaches. Building on key principles for attribution models set forth by the National Quality

Forum, we sought to develop an attribution model that is fair to providers, aligned with the goals of the MIPS program, and transparent. Specifically, we judged attribution options based on the following principles and criteria, which were endorsed by our TEP:

1) Attribution models should be fair and accurate;
2) Attribution models should align with the stated goals and purpose of the measure;
3) Attribution models should be transparent.

The MIPS MCC measure attribution was developed with extensive input from the TEP and uses a visit-based approach to attribute patients to a primary care provider (PCP) or a specialist who typically coordinates or "quarterbacks" care for MCC patients included in the measure. Focusing on visits over charges when assigning responsibility acknowledges the importance of provider interaction with the patient in establishing accountability for outcomes. In most instances, the provider with the most visits is a PCP. The attribution approach prioritizes assignment to a PCP over a specialist given the PCP's central role in coordinating patient services, including specialty care. However, we recognize that there may be situations in which a specialist may be more likely to be managing the patient, even when a PCP is involved. Thus, the approach assigns patients to a "dominant" specialist if one is present. Multiple attribution approaches were tested, and the current approach was selected based on the above criteria and input from the TEP.

Proposed Committee Response:
Thank you for your comments. The Standing Committee previously considered the attribution approach during the measure evaluation meetings and ultimately recommended the measure for endorsement.

Action Item:
The Standing Committee should review the comments and the developer's response and be prepared to discuss them in relation to the measure and its current recommendation status. The Standing Committee should determine whether they agree with the proposed response.

NQF Member Expression of Support

Throughout the 16-week continuous public commenting period, NQF members had the opportunity to express their support ("support" or "do not support") for each measure submitted for endorsement consideration to inform the Committee's recommendations. One NQF member provided their expressions of support: See Appendix A.

Appendix A: NQF Member Expression of Support Results

One NQF members provided their expressions of support/nonsupport. Six of seven measures under consideration received support from NQF members. Results for each measure are provided below.

0330: Hospital 30-day, all-cause, risk-standardized readmission rate (RSRR) following heart failure (HF) hospitalization (CMS/Yale CORE)

Member Council	Support	Do Not Support	Total
Health Professional	0	1	1

0505: Hospital 30-day all-cause risk-standardized readmission rate (RSRR) following acute myocardial infarction (AMI) hospitalization (CMS/Yale CORE)

Member Council	Support	Do Not Support	Total
Health Professional	0	1	1

0506: Hospital 30-day, All-Cause, Risk-Standardized Readmission Rate (RSRR) Following Pneumonia Hospitalization (CMS/Yale CORE)

Member Council	Support	Do Not Support	Total
Health Professional	1	0	1

2515: Hospital 30-day, all-cause, unplanned, risk-standardized readmission rate (RSRR) following coronary artery bypass graft (CABG) surgery (CMS/Yale CORE)

Member Council	Support	Do Not Support	Total
Health Professional	1	0	1

2888: Accountable Care Organization Risk-Standardized Acute Hospital Admission Rate for Patients with Multiple Chronic Conditions (CMS/Yale CORE)

Member Council	Support	Do Not Support	Total
Health Professional	1	0	1

3597: Clinician-Group Risk-Standardized Acute Hospital Admission Rate for Patients with Multiple Chronic Conditions under the Merit-based Incentive Payment System (CMS/Yale CORE)

Member Council	Support	Do Not Support	Total
Health Professional	0	1	1